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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/009,375

04/09/2002

Adi Balan

037/02528

7111

7590

02/28/2004

William H Dippert
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EXAMINER

GABOR, OTILIA

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 02/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/009,375

Applicant(s)

BALAN ET AL.

Examiner

Otilia Gabor

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/09/2002, 12/17/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 29-49 and 51-63 is/are pending in the application.
- 4a) Of the above claim(s) 1-8, 48, 49 and 51-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/03.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 29-47 in Paper No. 12/17/2003 is acknowledged.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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5. Claims 29-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. (U. S. Patent 6,205,347).

Morgan et al. discloses a method of nuclear imaging including the step of attenuation correction of the nuclear images, the method comprising:

- acquiring nuclear emission data over a portion of the body (SPECT/PCD or PET imaging) whereby planar, planar whole body or SPECT/PCD acquisition and imaging of the body containing gamma radiation emitting radioisotopes is generated in order to localize the tumor and the tumor borders in the body
- acquiring transmission data over a portion of the body using a CT imaging system whereby the body is scanned with X-rays and the resulting nuclear image is displayed. The final delineation of the radioactive region of the body is done by processing the nuclear emission image taking into consideration the transmission data obtained and combining the two image representations, thus reducing the image attenuation.

Morgan et al. does not explicitly disclose that the images acquired are of a first and second portion of the body where the second portion is smaller than the first. However, since the two images are independently taken in the Morgan et al. arrangement, and since he allows for the two independent images to be taken of the same body part, it would have been obvious to one of ordinary skill in the art at the time the invention was made to take the second image of only the body part that the first image showed as the interested part, i.e., the part of the body where the first image

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indicated radioactivity, since this way the imaging time, the radiation dosage and the errors are greatly reduced.

Regarding claim 41 Morgan et al. discloses taking the image of the whole body even though the interested part is the tumor at a particular body part, or a particular organ.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Gagnon (6,628,983; 6,429,433) – nuclear imaging system with enhanced transmission imaging; Panin et al. (6,539,103) – image reconstruction method.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 571-272-2435. The examiner can normally be reached on Monday-Friday between 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Otilia Gabor
AU 2878

A handwritten signature in cursive script, appearing to read "Otilia Gabor".